



P. juliae



P. rubra



P. glaucescens



P. scapigera

Quarterly of the American Primrose Society



P. Viali



P. denticulata



P. Sieboldii



P. pulverulenta

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P. capitata



P. chionantha



P. Forrestii



P. Florindae



Auricula



Hose-in-hose



P. frondosa



P. kisoana



P. involucrata



Polyanthus

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Quarterly

of the

American Primrose Society

Volume XIII

October, 1955

Number 4

Cooperative Supplement to the Pictorial Dictionary of the Cultivated Species of the Genus Primula

(Continued from Page 88)

incana (11) "The *incana-intercedens* controversy" has renewed the interest of several



(Courtesy of Mrs. K. N. Marriage)

Primula angustifolia

"A delightful little clear pink American species with a yellow eye. Blooms early and prolifically on three inch stems.

after its true spring blooming period." This plant did not live to bloom another spring.

P. incisa Lamarck=*integrifolia*

P. imperialis is so rare in the United States and seeds are so hard to get that a premium for them is offered by the Society.

P. japonica "is a deciduous perennial Candelabra and one of the first to appear in the spring. Its color is very recessive and tends to streak the corollas of the lighter japonica hybrids in the vicinity.



(Courtesy Royal Horticultural Society)

Primula Kingii

Kingii of the Amethystina Section is a great favorite among excellent gardeners. *Kingii* is best grown in a group as it seems to be gregarious. It will however, respond to pot culture and should be kept relatively dry through the resting season. (see page 98, July '54 Quarterly). "The leaves are fascinating which is a good thing as *Kingii* sometimes waits two or three years, for a season to its liking, before it will flower." (ACUB)

leucophylla Pax = *elatior* subsp. *leucophylla*

lichiangensis = *polyneura*

Listeri Forrest = *simolisteri*

Littoniana Forrest = *Viali*

Loczii = *stenocalyx*

longiflora = *Halleri*

melanops of the Nivales Section "is very beautiful and distinctive with its lovely, almost black-eyed flowers. It is not too hardy and care must be taken in growing it. I had to move my plants from the limestone scree as they were getting smaller and smaller." (ACUB)

microdonta Franchet ex Petitmengin = *sikkimensis*

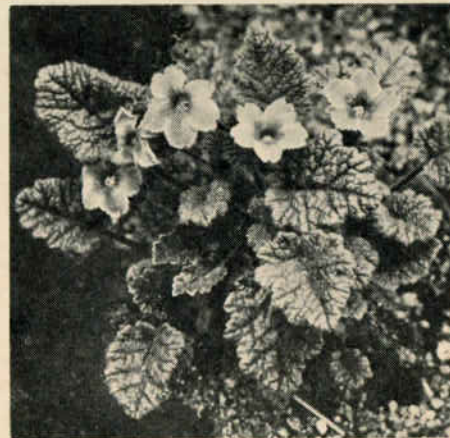
microndonta var. *alpicola* W. W. Smith = *alpicola*

mistassinica (11) "The picture of *mistassinica* on page 106 of the Dictionary looks like *modesta* to me. The ones I had for four or five years were about 1 1/2" tall and were kept in pots



(Courtesy Royal Horticultural Society)

Primula Knuthiana, one of the most beautiful of the Farinosae.



(Courtesy Mrs. A. C. U. Berry)

Primula Rockii

as they were so tiny they would have been lost in the garden. They are simply adorable." (ACUB)

P. mollis. "I find that *mollis* and others of the Cortusoides Section are especially beautiful in the wildflower garden. The beautiful downy leaves are a decoration long after the flowers have faded." (IA)

Mooreana = *capitata* subsp. *Mooreana obtusifolia*: "The distinctive leaves are long and spoon-shaped, and covered on their undersides with white farina. The scape varies in length from 4-18" and bears one, two, or three umbels of purple flowers, though the colour of the flowers, like the dimensions of the leaves and scape, vary quite considerably." (C) *Primula obtusifolia* flowered beautifully this year in Mrs. A. C. U. Berry's garden in Portland, Oregon, and is just now (September 1st) setting seed.

officinalis = *veris*

petiolaris. This type plant from the *Petiolaris* section was inadvertently left out of the Dictionary. The stout, perennial rootstock produces a tuft, 6" across, of thin oval or oval-lance-shaped, irregularly toothed leaves about 3 1/2" long, which forms a collar for a cluster of efarinose buds. (This makes it distinct from its closest relative *gracilipes*.) The mature flowers are exannulate and measure about 3/4 to 1 1/4 inches across. These are a fine reddish-purple and are carried on stems which are much shorter than the leaves. The petals are egg-shaped and edged, at the tip, with several sharp teeth. Mrs. Knox Finlay grows this plant to perfection in Perthshire, Scotland.

reptans (16) Could anything be lovelier than the tiny crinkled spoon-shaped picoteed edges? But to keep it, is something else. This stoloniferous *Minutissimae* should be planted firmly and weighted down with small rocks and held down with hairpins until its roots take hold. It needs dampness below and this can be maintained easier with a beaver dam type of soil or a peat, screened leaf mold mixture together with 1/4" screened crushed rock. This type of plant is often successfully established by adding, at intervals, a thin layer of small pebbles under the leaves. (ACUB) (Illustrated on page 118.)

Rockii (3) "One of my tragedies is that I lost this lovely species. Dr. Rock has given me seed and I am waiting for it to germinate. *Rockii* is a perfectly adorable plant, very small with orange flowers. Some very keen gardeners in B.C. have been flowering it for four or five years and are very generous with it. It has a woody stock and is hard to divide. It doesn't look very much like *Forrestii* to me." (ACUB)



(Kodachrome courtesy Orval Agee, processed by Charles Conkling, engraving by Maddox)

Primula mollis



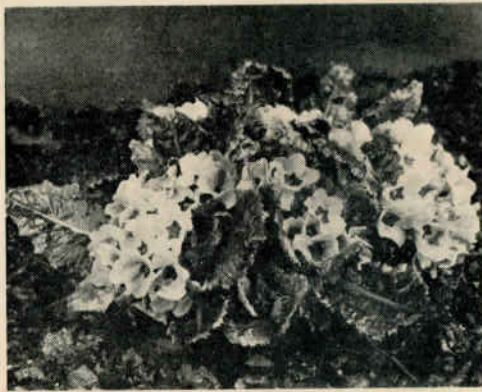
(Courtesy Mrs. A. C. U. Berry, processed by Conkling, engraved by Maddox)

Primula obtusifolia



(Copyright D. Wilkie)

Primula sonchifolia in winter resting bud.



(Copyright D. Wilkie)

Primula sonchifolia one month later.



(Copyright D. Wilkie)

Primula sonchifolia three months later.

rosea is a beautiful Farinosae and it is a good thing as it "seeds itself in the well packed paths and in the lawn. We always try to get the seed picked in time as soon as ripe or it would gobble up the garden." Louise Gee, Portland, Ore.

Sibthorpii = *vulgaris* subsp. *Sibthorpii sonchifolia*. Oh, such a weight of promise is held in the heart buds of *sonchifolia*! "We should see them in bloom this spring. The big fat resting buds are doing nicely out in the new frame. I watch them develop every day." (ACUB) It is recorded that the natural habitat of this Petiolares is a dense conifer forest or it may grow between huge old twisted rhododendron trees whose branches form a protecting closed roof over the undergrowth. It is very easy to imagine the deep black humus which must have accumulated to make up the soil.

specuicola was reintroduced by Mrs. A. C. U. Berry after she collected it in Utah in 1941. This Farinosae was originally found by Miss Eastwood who thought it was *farinosa*, in Utah, in 1895. Mrs. Berry found the plant illustrated growing in shallow soil on a hot cliff. "It differs from *farinosa* and from all other American species which have been called *farinosa* in the very sharp calyxlobes, long corolla-tube and short capsule. ... As Rydberg pointed out in his diagnosis, it is quite unlike *incana*, the only other species of the section then known in the Rocky Mountains. (see description of *Hunnewellii*) A photograph of this plant in colour, communicated by Mrs. Berry, shows: Leaves subsessile, sinuate-dentate, somewhat glaucous above as if there sparingly farinose; scape farinose towards apex, 5-flowered; bracts not gibbous; corolla violet but darker violet in bud; tube nearly twice as long as the calyx and yellow, sprinkled on the upper half with farina; eye of the corolla yellowish; lobes more obcordate than cuneate. Seeds from this plant germinated in Edinburgh and by August 1942 produced plantlets with leaves 4 cm. (approx. 1/4") long, quite farinose below, well sprinkled with farina above. The leaves are revolute as in Farinosae, and the association of the species with *Ellisiae*, suggested tentatively by Rydberg, cannot be upheld." (S:F) Mrs.

Berry thought *specuicola* resembled *frondosa* rather than the other American species. "...those who clamour for new Primulas would probably be well content with its umbels of discreer lavender and serrate foliage smothered in the customary flour, even if "*specuicola*" were not such a well-chosen and evocative name... of sturdier mein than *frondosa*, since the fat, lettuce-like rosettes grow sometimes in groups of half a dozen on the same plant." (AGS, Vol. XII, p. 74: Dwight Ripley)

villosa subsp. *commutata* has longer petioles and larger leaves than the type. It is blooming outside in a pot in a Portland, Oregon, lath house, October 16th. It will be placed under glass for the winter. Very lovely and dainty.

vittata = *secundiflora*

Wardii = *yargongensis*

Werringtonensis = *obconica* var. *Werringtonensis*

Winteri = *Edgeworthii*

Wollistonii. It is interesting that this Soldanelloideae is often not as dead as it looks. Even if the parent plant dies, others may come up the following season.

yargongensis. Lawrence D. Hills of Barnet, (near London) advises, "Sow September or January, freeze, pot leafy soil, and plant September or Spring. Semi-shade and humus not damp."



(Color film courtesy Mrs. A. C. U. Berry, processed by Conkling, engraved by Maddox)

Primula specuicola



Primula reptans

(Copyright D. Wilkie)

Bibliography with Key to Abbreviations

USED IN THE PICTORIAL DICTIONARY (1954)
AND THE SUPPLEMENT (1955).

- ACUB Mrs. A. C. U. Berry, Portland, Oregon
 AG Bulletin of the Alpine Garden Society (please turn to page 64)
 B Walter C. Blasdale, Berkeley, California, author of *Cultivated Species of the Genus Primula*, University of California Press
 C Kenneth Charles Corsar, Midlothian, Scotland, author of *Primulas in the Garden*, published by Geoffrey Bles.
 CC Ciceley M. Crewdson, Kendal, Westmorland
 C&T E. H. M. Cox and G. C. Taylor, London, England, authors of *Primulas for Garden and Greenhouse*, published by Dulau & Company
 DB Dan Bamford, Middleton, England
 DL David Livingstone, Edinburgh, Scotland
 DO Donald O'Connell, Cambridge, Massachusetts
 F Harold R. Fletcher, Ph.D., D.Sc., Director of Royal Botanic Gardens, Edinburgh
 FL Florence Levy, Editor Emeritus, Barnhaven, Gresham, Oregon
 FPC *Fourth Primula Conference*, 1928, published by the Royal Horticultural Society
 GB George Boving, University of British Columbia, Vancouver, B.C.
 G.F.J. *Journeys and Plant Introductions of George Forrest*, Oxford University Press
 JSR Journal of the Scottish Rock Garden Club
 J:L Leo Jellito as translated by Robert Luscher
 IA Ivanel Agee, 11112 S.E. Wood Avenue, Milwaukie, Oregon
 JD Jack Drake, Inchriach Alpine Plant Nursery, Aviemore, Inverness-Shire, Scot.
 KW F. Kingdon Ward, Kensington, London. S.W.5: Author and Plant Hunter.
 L&S F. Ludlow and Major G. Sherriff, Angus, Scotland
 MacW John MacWatt M.B. *The Primulas of Europe*
 RF Reginald Farrer author of *My Rock Garden*, published by Edward Arnold & Company; *The English Rock Garden*, published by Thomas Nelson & Sons
 RHSJ Journal of the Royal Horticultural Society
 S:F Sir William Wright Smith and Dr. Harold R. Fletcher, co-authors of the *Mono-graphs of the Genus Primula* published by the Botanical Society of Edinburgh, the Royal Society of Edinburgh, and the Linnean Society, as follows:

SECTIONS OF THE GENUS PRIMULA, Smith and Fletcher

- Year
 1941 Candelabra Transactions and Proceedings of the Botanical Society of Edinburgh, Volume 33, Part II, 1941
 1942 Amethystina)
 Minutissima) Transactions and Proceedings of the Botanical Society of
 Muscarioides) Edinburgh, Volume 33, Part III, 1941-42.
 1943 Sikkimensis)
 Soulei) Transactions and Proceedings of the Botanical Society of
 Rotundifolia) Edinburgh, Volume 33, Part IV, 1942-43.

- 1944 Cortusoides)
 Malvaceae)
 Pycnoloba) Transactions and Proceedings of the Botanical Society of
 Dryadifolia) Edinburgh, Volume 34, Part I, 1943-44.
 Capitatae)
 1948 Vernales) Transactions and Proceedings of the Botanical Society of
 Edinburgh, Volume 34, Part IV, 1946-47.
 1949 Additions and Corrections to the Genus *Primula* (up to and including 1949), Volume 35, Part. II.
 1942 Soldanelloideae Journal of the Linnean Society of London, Vol. LII, No. 344,
 October 1942.
 1942 Nivales Transactions of the Royal Society of Edinburgh, published
 incl. Obtusifolia in England, II (17) 1941-42.
 1943 Farinosae Transactions of the Royal Society of Edinburgh, 61 I, (1)
 1942-43
 1944 Petiolares Transactions of the Royal Society of Edinburgh, 61, II (10)
 1944
 1944 Obconica)
 Sinenses)
 Reinii)
 Pinnatae)
 Malacoides) Transactions of the Royal Society of Edinburgh, 61, II (17)
 Bullatae) 1946
 Carolinella)
 Grandis)
 Denticulata)
 1948 Cuneifolia)
 Floribundae) Transactions of the Royal Society of Edinburgh, 61, III (22)
 Parryi) 1948
 Auricula)
 1948-49 Additions and corrections to the Genus *Primula*... Transactions
 and Proceedings of the Botanical Society of Edinburgh,
 Vol. 35, Part II, pages 180-202.
 SRGC Second Rock Garden Conference, published jointly by the Alpine Garden Society and the Scottish Rock Garden Club. (please see page 64)
 ST Major George Sherriff and Dr. George Taylor
 PC:66 *Primula Conference of 1866*, published by the Journal of the Royal Horticultural Society, Vol 7, No. 2 (long out of print, a collector's item.)
 PC:13 *Primula Conference of 1913*, published by the Journal of the Royal Horticultural Society, Vol. 39, Part 1, in London.
 WI W. E. Thomas Ingwersen, Birch Farm Nursery, Gravetye, E. Grimstead, Sussex, England.

THE NATIONAL AURICULA AND PRIMULA SOCIETY (Southern Section). Membership, \$1.50, (Yearbook only, \$1.00). Please write to the Hon. Sec. Edwin C. R. Hill, B.Sc. c/o G. L. Hearn & Partners, King's Head Yard, Borough High St., London, SE 1, England.

Number of Primulas

With KEY (in brackets) to the Sections

It is impossible to be sure, at any given time, how many *Primula* species there are. The following numbers of species have been in cultivation during the past few years according to the most reliable garden journals and reference books. The chart below shows that there are 250 *Primula* species in cultivation, 449 valid species, 45 subspecies, 111 varieties and 38 forms.

Cult.	Key	Section	Subsection	Species		Varieties		Forms
				Species	Subspecies	Varieties	Forms	
5	(1)	Amethystina		8	2	3		
21	(2)	Auricula	7	21	4	5		1
5	(3)	Bullatae		7		1		
19	(4)	Candelabra		30		4		
2	(5)	Capitatae		2	5			
	(6)	Carolinella		6				
15	(7)	Cortusoides	2	24	1	4		
3	(8)	Cuneifolia		3	3			
3	(9)	Denticulata		6	1	1		
1	(10)	Dryadifolia		6				
49	(11)	Farinosae	8	83	1	17		1
2	(12)	Floribundae		6	2	1		
1	(13)	Grandis		1				
2	(14)	Malacoides		8	3			
3	(15)	Malvacea		5	1	1		
8	(16)	Minutissimae	2	24	5			
11	(17)	Muscarioides		17				
23	(18)	Nivales	4	45		19		
4	(19)	Obconica		17		4		
5	(20)	Parryi		6				
23	(21)	Petiolares	5	56		8		
	(22)	Pinnatae		5				
1	(23)	Pycnoloba		1				
3	(24)	Reinii		5				
4	(25)	Rotundifolia		8				
10	(26)	Sikkimensis		11		7		
2	(27)	Sinenses		2				
16	(28)	Soldanelloideae		22		2		
3	(29)	Souliei		7	1	1		
6	(30)	Vernales		7	16	33		36
250				449	45	111		38

ERRATA

Readers have been kind enough to send in the following corrections for the Pictorial Dictionary of the Cultivated species of *Primula* (1954 Quarterlies) and for the first installment of the Supplement. Please correct the following on the original copy.

p. 94, line 40—should read: or less mealy. Scape 1½-10" tall,

p. 96, line 29, first word: should read: *jesoana*

p. 124, line 30—should read *pinnatifida* (17)

p. 124, line 30—The description of the cultivated species *petiolaris* was omitted, please see page 116.

p. 137, line 45—should read *spicata* (28)

p. 140, line 51—should read *tibetica* (11)

p. 142, lines 8-9—should read East in S.E. Tibet. Jack Drake completely covers *umbratilis*, whether grown in pots, in the open, or in frames, from the middle to the end of March, with glass. They are then uncovered as they bloom in April or May. It is a good rule to uncover them when the growth is properly under way in the Spring. This will vary according to climate.

p. 145, line 16—should read: Styria and *Carinthia* at 5-6,000'.

p. 84, line 10, July '55—should read *Schulusselblumen*

p. 85, line 18, July '55—should have words deleted which are in parenthesis. (La Lorraine is a very valuable hybrid between *polyneura* and *saxatilis*.)

Information for Members New and Old

The species in their sections appear in Vol. 10, pages 14-19, 1953.

The key numbers of the Sections and an alphabetical list of the species of *Primula* appear in the Spring, 1953 A.P.S. Quarterly, Vol 10, pages 20-27.

Cultural and other information on *Primula* may be found in the first eleven volumes of the Quarterly and an index to those volumes appears in Vol. XI, October, 1953, on pages 56 to 63.

The *Pictorial Dictionary of Cultivated Primula* is contained in the four issues of Vol. 12, 1954.

The Quarterlies for 1955 include New Show Rules and Judging Schedules and the Pictorial Supplement to the Dictionary of Cultivated Primulas.

In the October, 1953, Quarterly, page 56 may be found the prices of the older issues and volumes of the Society, an Index, and a Table of Contents to help you select Quarterlies which deal with your particular interests. The Quarterlies before 1953, were smaller but they were edited, for the most part, by Florence Levy, now Editor Emeritus. These Quarterlies are considered one of the most valuable assets of the Society for they contain down-to-earth, beautifully written articles on every phase of *Primula* lore.

"Application for Membership" blanks, such as the one on page 135, are equally useful for renewals and for gifts. Many international friendships have sprung up between patrons and overseas members. The Treasurer has names of fine gardeners in New Zealand, Australia, Switzerland, Germany, and England if any members would like to send gift subscriptions.

Please note the different types of memberships: (excerpts from By-Laws, pages 80-81, 1955 Year Book, in *italics*.) (1) First member in the household may have a membership which, among other benefits, includes four Quarterlies a year. (2) A second member in the same household may be a member for \$1.00. However this does not include a subscription. (3) A sustaining membership may be purchased by anyone who wishes to support the Organization. In these days when printing and engraving costs are increasing, such contributions are very welcome. (4) A life membership by persons interested in furthering the work of the Society for a fee of \$100.00. (5) An affiliated Organization membership may be taken out by local, State, or National garden clubs, or similar organizations that have especial and pre-eminent interest in *Primulas*, affiliating themselves with the National organization; and such membership shall be based upon payment of 25 cents for each member who belongs to the affiliated society as of the

(Continued on page 130)

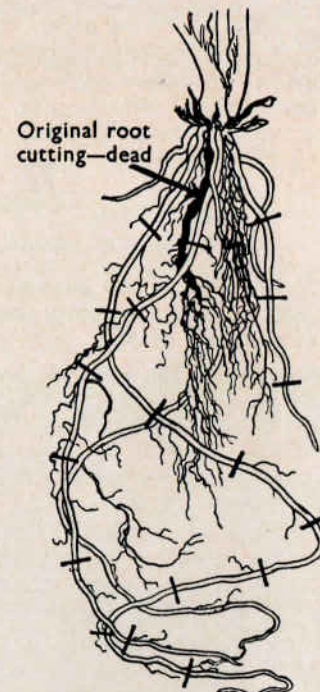
Methods of Propagating *Primula denticulata*

George B. Boving, Vancouver, B. C., Canada

The best time to start the work of increasing *denticulata* by root cuttings is between March and May. To begin, lift the plant, choose mats of average thickness (1 1/8") and cut in 1" lengths. If end pieces are also used, increase length in order to compensate for thickness. Sections of roots are laid on the bench right way up so that when planted the same position may be retained by each root. If this is not observed the cutting will die. Roots issue first from the base of the cutting and later on from the bottom of leafing shoots, the end roots gradually shriveling. Insert cuttings 1" apart into a mixture of one part leaf mold to four parts of sand, water, plunge in seed frame with an air temperature of about 70 degrees, and cover pan with a sheet of glass, later turning and wiping the same as for other subjects. According to the information given by Lawrence D. Hills in his book THE PROPAGATION OF ALPINES*, "All root cuttings need less water than stem cuttings, as they have no leaf surface transpiring water faster than it can be gathered, but unrooted, they are a dormant mass of starches, ideal bacterial food until they are established." In one to two months the cuttings will have made new crowns with a rosette of leaves, as well as an adequate root system, to carry on an independent existence. Thus new clones may be established. *Anemone pulsatilla* can be treated in this manner; cuttings may be taken in June, July or August of those variations worth propagating. *Morisia monanthos* is a case in point.

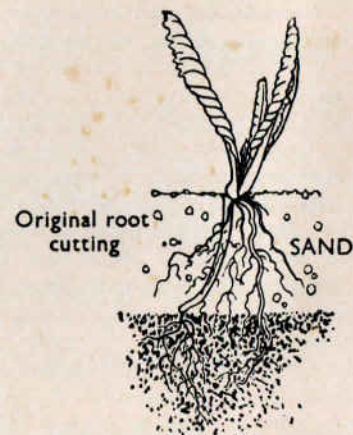
The University of British Columbia has "Open House" every three years. At the one before the last I had an exhibition of this method of propagation. In preparation I had sawed an 8" pan in half, and covered the sawed surface with glass behind which the root-cuttings were shown lined up in a single row. The method is mentioned by Lawrence D. Hills; I simply tried it out and found it excellent. My reason for using this type of propagation is ably stated by Lawrence D. Hills, "..." to increase a good plant discovered among seedlings, such as a dark purple, or an even nearer approach to crimson than *denticulata rosea*, as these can be labeled for propagation and lifted immediately after flowering, while colours are fresh in one's memory."

Primula denticulata is an important species because it grows in several types of climate. Robert Luscher, A.P.S. Editor in Charge of Translations, writes, "*Primula denticulata* has proven its toughness here in the East during the past beastly hot and dry summer months better than many "easy" species or



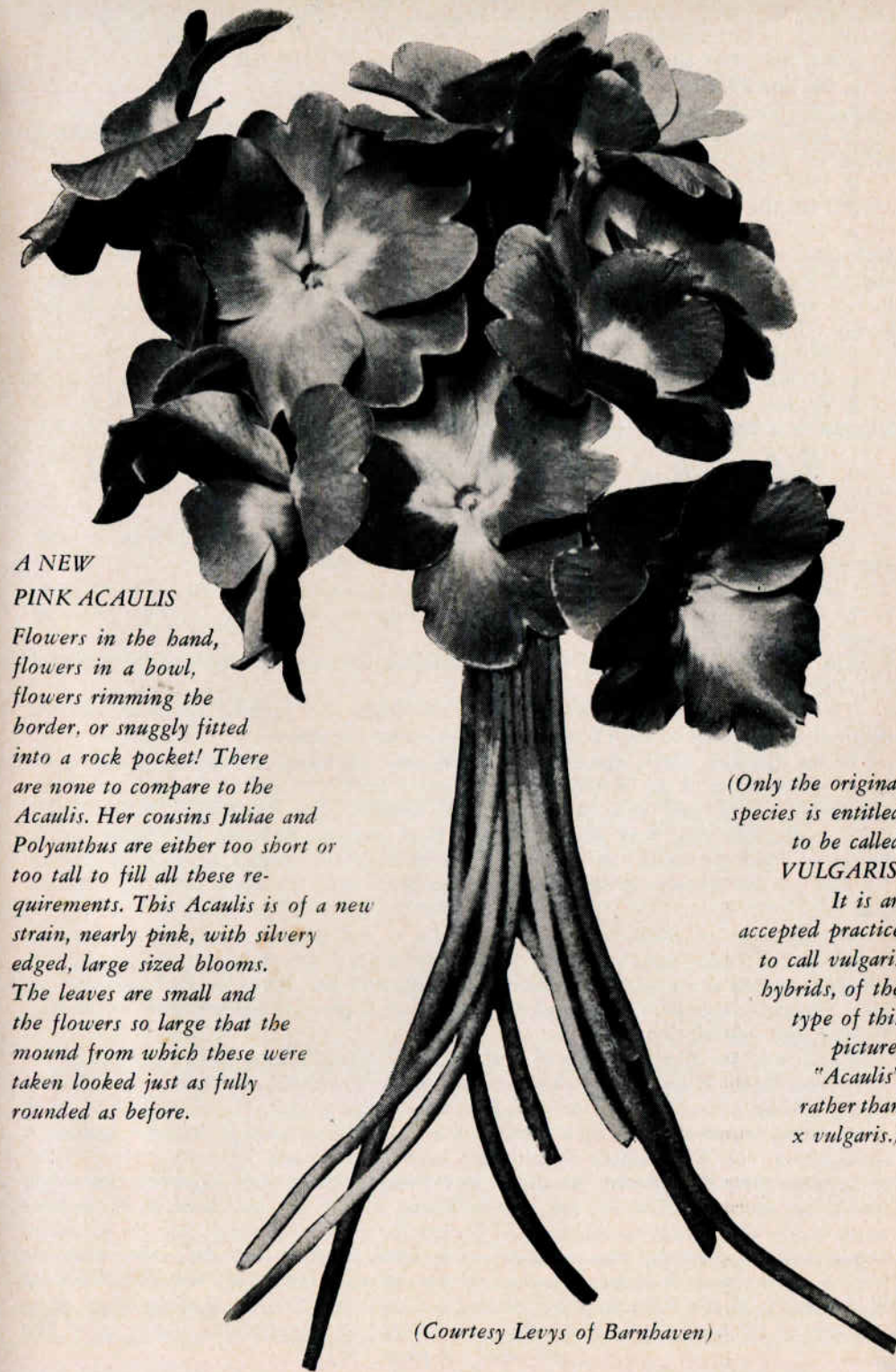
(courtesy Faber & Faber**)

Primula denticulata root cutting, two months old, half natural size.



(courtesy Faber & Faber****)

Primula denticulata root cutting, two months old, half natural size.



(Courtesy Levys of Barnhaven)

(Only the original species is entitled to be called VULGARIS.

It is an accepted practice to call vulgaris hybrids, of the type of this picture, "Acaulis" rather than x vulgaris.)

A NEW PINK ACAULIS

Flowers in the hand, flowers in a bowl, flowers rimming the border, or snugly fitted into a rock pocket! There are none to compare to the Acaulis. Her cousins Juliae and Polyanthus are either too short or too tall to fill all these requirements. This Acaulis is of a new strain, nearly pink, with silvery edged, large sized blooms. The leaves are small and the flowers so large that the mound from which these were taken looked just as fully rounded as before.

hybrids. Because their immense leaves evaporate so much water it is important, in fact, they must be watered freely. All direct "fierce" sunlight is to be avoided or the plants will dry out." Florence Levy, Editor Emeritus for the A.P.S. has pointed out, "There must be a distinct relationship to drying out in the summer, which creates a woody fiber in the crown, and a rotting of the crown (when not as a result of fungus) in the winter. The plant is simply not in condition any more than is a woody parsnip to manage the winter's wet."

* Lawrence D. Hills, *THE PROPAGATION OF ALPINES*, Faber and Faber, P. 220.

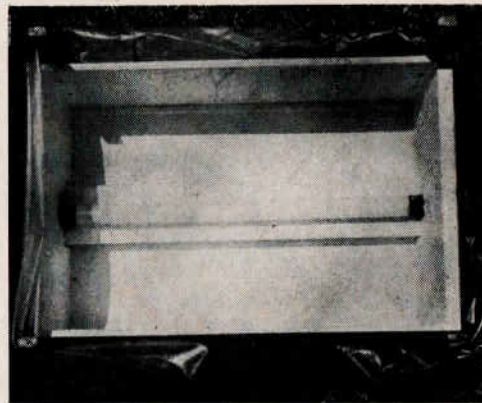
** *ibid.*, P. 222. Please see advertisement on page 138.

**** *ibid.*, P. 221.

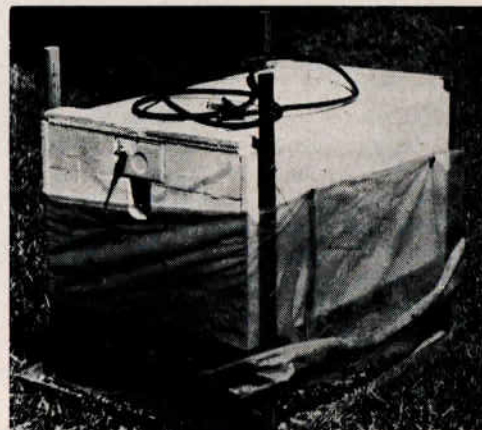
Fluorescent Light Box

Elmer C. Baldwin, Regional Editor, Syracuse, New York

I am enclosing two pictures of a small (trial) fluorescent light box which we used last winter with rather surprising results. The box is an apple box (of wood) with an inside clearance of 8½" deep x 11½" wide x 18" long and painted white inside to intensify the light. It is just of a size to accommodate a 15 watt tube which is available mounted on a white enamel metal box 2" x 4" x about 19" long containing the necessary starter, lamp brackets, etc., wired ready for use. As no switch is included, a push-on-off switch was mounted permanently in one end of the metal box and the cord taken out the other end. In each end of the wooden box an opening of a size to allow sliding the metal box and tube in from the end was cut. As may be seen, a shoulder of wood supports the metal box so that it may not drop. Two small screws put through the top of the wooden box fix the metal box and prevent its sliding out endwise.



To make the unit more flexible 1¼" round head machine screws were mounted in each corner as shown in the picture, 3" apart, 3 to each corner. A nut drawn down snugly on each screw made it a permanent fixture. Four hardwood corner posts ¼"x1"x16" were each drilled at one end with four ⅛" holes 3" apart. This allows an adjustable yet rigid support for the hood (box) and allows a fixed distance to be maintained between plants and light. In the box shown the distance from lamp to floor may be either 9", 12" or 15" dependent upon the choice of leg position. A galvanized iron pan or tray was used. This was covered with about ¾" of vermiculite which was kept damp to maintain higher humidity. A plastic curtain was used at the sides to retain humidity. We placed the unit in the basement. The light was on 12 hours and off 12 hours. The temperature inside the curtain at night was 60 degrees. In the daytime with the light on, the temperature never exceeded 62 degrees.



With this floor area (12"x18") it will be seen that a great quantity of seedlings may be grown on until they have to be transplanted. There is room for 15—3½" pots, 24—3" pots and 35—2½" pots. This has proven a very economical starting or growing box. By using the plastic curtain around the sides we found it necessary to water the plants but once a week.

The picture shows four auricula "Alpine" seedlings planted May 1st, transplanted October 1st to 2" pots, shifted December 1st to 2½" pots, March 1st to 3" pots, grown inside throughout to maintain adequate moisture control. The two pots at left in the picture were grown in daylight while the two on the right were grown under the 15 watt fluorescent light described above, with a 6" space between the tube and the top of the plants. As yet we have no tests on growing flowering auriculas under lights, but as for seedlings no other method has come near to producing as much plant growth as has this "winter" light.

Larger tubes may be used of course. Two 40 watt tubes spaced a foot apart under a white reflector will light a table space of 2'x4'. With the larger tubes mounted on a 2'x4' white board or ceiling, transparent plastic material is fastened to the top and hangs down at the sides to below the floor level of the unit to maintain higher humidity.

This type of unit is particularly useful in growing other flowers such as flowering Gloxinias and is commonly used hereabouts for African violets.



Mrs. John Shuman, S.A.F.A. Chairman

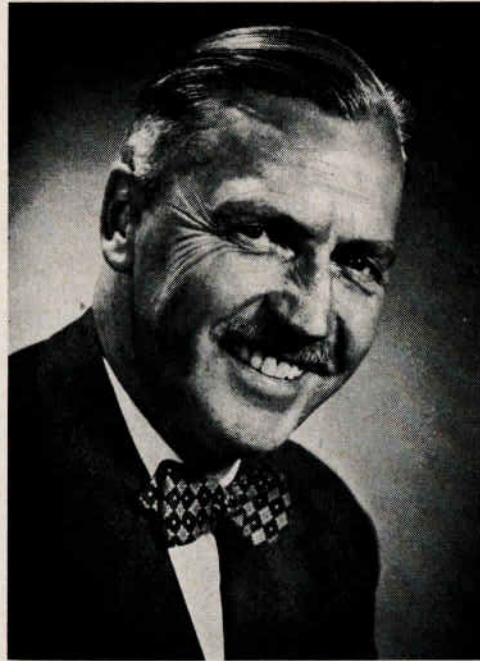
Mrs. John Shuman, by the ruling of the Board, has been appointed as liaison officer between the A.P.S. and the Committee for the Show Auricula Floriculturists of America. Mrs. Shuman is Acting Chairman for the S.A.F.A. since the illness and subsequent resignation of Mr. Ralph Balcom. All requests for information as to the Judging and Culture of Show Auriculas as well as requests for examinations (please see page 14) should be sent to her, Win Shuman, 5957 37th St., S.W., Seattle, Washington.

THE NATIONAL AURICULA AND PRIMULA SOCIETY (Northern Section). Membership, \$1.50, (Yearbooks only, \$1.00). Please write to the Hon. Sec. R. H. Briggs, Springfield, Hastingden, Rossendale, Lancs., England.

The Scottish Rock Garden Club Annual subscription \$1.50 personal check or bank draft. Two journals a year. Frequent articles on Primulas. Liberal seed exchange. Seeds of 72 varieties of Primula distributed last year. Write for membership forms and for information to—Major-General D. M. Murray-Lyon, Honorable Publicity Manager, 28a Inverleith Place, Edinburgh, 4, Scotland.

Mr. Douglas Duncan is the first President of the newly formed CANADIAN PRIMULA & ALPINE SOCIETY. He was probably elected because of his efficiency and competency, as well as his success, in recent years, of growing, particularly the newer strains of Polyanthus, to perfection. It has been Mr. Duncan's experience that work in a garden not only relaxes one, but provides a wealth of serenity which helps to resolve the "problems of everyday life."

The Duncans share the anticipation of the spring flowering of their garden with Mrs. Duncan's mother, Mrs. Baigent, whom Mr. Duncan considers "one of the most remarkable gardeners in British Columbia." and with their friends. This has led not only to the enjoyment of the garden itself, but to inspiring talks over coffee-breaks. During the winter they plan their gardens (Mrs. Baigent has a famous one of her own and Mrs. Duncan is interested in growing many types of plants from seed and in hybridizing) by pouring over plant and seed lists and by visualizing their rewards: "better primulas and companion plants every year." Mr. Duncan feels that "a plant society is for sharing the many joys of gardening," and has been interested from the beginning in the newly formed Canadian Primula and Alpine Society. "A gardener needs a friendly ear to listen to his accomplishments as well as to hear of other people's. What better news is there than that of the remarkable advances in new strains through the successes of hybridizers, and the ways in which the species, brought back by the Plant-hunters, have been acclimated?"



Douglas Duncan, President of the Canadian Primula and Alpine Society, Vice-president of the American Primrose Society.

Jottings From The Canadian Primula And Alpine Society

Mrs. Eugene C. (Grace) Conboy, Regional Editor, South Burnaby, B. C.

In April of this year, Mr. James Watson, an enthusiastic member of the A.P.S., gave a reception for the Dale Worthingtons, who were visiting in Vancouver. He asked Lance Taylor, who was A.P.S. Vice-President for this area, to invite all the Canadian members of the A.P.S. and anyone else in the area who might be interested in Primulas. The success of the evening was evidenced by a decision to form a society of our own.

An opening meeting was called together in June by Lance Taylor who was then elected as Secretary-Treasurer. Mr. Douglas Duncan was elected President and I, Vice President. The public was invited to this meeting and a part of the A.P.S. slide collection was shown. The amazing range of the cultivated species of Primula was a revelation to many. We voted on a name for our group. As many members were equally interested in Alpines, the name "Canadian Primula and Alpine Society" was felt to be more appropriate than "Primula" alone.

The A.P.S. has since challenged us by asking us to become a group of authorities on

the Section Vernales. This was discussed at our last meeting and the general consensus of opinion was favorable to the project. We do have a number of very keen growers in our locality.

Mr. Duncan, our President, has grown the best Polyanthus I have seen anywhere, if you like them robust and beautiful. His have certainly the status of a border perennial rather than a diminutive edging plant!

Mrs. Rosella Schmidt, of Abbotsford, has a very fine collection of named Juliana hybrids and is growing some good seedlings of her own crosses. She and I each have a nice collection of the double vulgaris and Polyanthus forms. We have been working together on pollinizing for a wider colour range in good doubles. I enjoy growing a good range of the species as well as a number of the old forms such as hose-in-hose, Jack-in-the-green, and gold-laced Polyanthus.

Mr. George Boving, who is an authority on Alpines, has been on the staff of gardeners working at the University of British Columbia for quite a number of years. He is a competent grower of many of the species of Primula, particularly the Candelabra Section. This year one of the outstanding displays in the gardens was a superb planting of *Primula Viali*.

I have not been given enough room to tell you about other interesting members of our group, but will do so later. Needless to say we did pop a few vest buttons to be honoured by our own Mr. Frank Michaud's winning of the Bamford Trophy! It was a pleasure to have the opportunity, at the presentation, to meet the President of the A.P.S., Mrs. Wayne Arnold, Mrs. Arnold, Florence Levy, Editor Emeritus of the Quarterly, Susan Worthington, Editor, Win Shuman, Chairman of the Show Auricula Floriculturists of America (a subsidiary group of the A.P.S.), and John Shuman who took top honors at the National Show in Seattle this year.

I am sure that after more of the members see Mr. Michaud's beautiful collection of Shows and Alpines they will be endeared to these noble flowers as I have been. This was my first year of "potting up" close to one hundred plants—the majority seedlings of unknown merit. These babies have been bedded gently under glass with high hopes for something good next Spring. At present the plants look in beautiful condition, and it is to be hoped that there will not be "the too many disappointments" which the sage growers warn us to expect from seedlings. I only hope that I was able to translate a suitable compost formula from the many texts consulted!

The Vancouver and Lower Mainland area seems to be ideally suited to the requirements of many of the Primula family. We have a climate comparable to many parts of Great Britain. Many years will go through the winter with little or no snow and only a few degrees of frost. However, there is usually a good supply of rain which means protection to some of the Alpine species. Unexpected sharp spring frosts are the greatest concern when top growth does not ripen sufficiently to withstand sharp drops of temperature. This can only be combatted by some form of loose mulching such as bracken or evergreen boughs.

The enthusiasm to date that has been shown by all the members of our group seems to indicate a successful future for this affiliated branch of the American Primrose Society. May our enthusiasm be shared with other members throughout the world. Together we can contribute to posterity by helping to preserve the species, precious natural hybrids, and rare cultivars. I hope, in the future issues, to indicate our success along these lines. Mr. Boyes, of our group, has been given the position of official photographer. At present he has a very fine collection of Alpine colour slides. We are hoping, through him, and several other keen photographers in our society, to build an inclusive collection of Primula slides for our library.

One thing we can state with authority is that some seed of each treasured species of primula should be planted each year. We have experienced and we have read the "sad story" of how a treasured clone or a whole group of plants can be "missing" in the spring. It is worth the effort of growing new batches of seedlings, a thousand times, to be able to meet another spring of Primrose gladness.

European Column

Robert Luscher, Editor in Charge of Translations, Thedford, Ontario, Canada

While reading of Doretta Klaber's experience with the variable species *Primula farinosa* my mind went back some years to Switzerland where as a youth I walked over quaking moors. I would hike three and four hours at a time when I should have been studying higher mathematics. I found a knowledge not to be had in books. Perhaps it was here that I felt that I needed to follow a life work which would keep me close to the soil and near to growing things. I know that my imagination ran wild, that my hopes were free, that my spirit rode high and that my body was as full of health as my lungs were of the fine clear air.

I found two locations or stations of the Bird's Eye *Primula* which gave me a lesson in the different forms the same species can take according to its environment. I would come upon thousands upon thousands of this dainty primula which would sway in the gentle breeze with a background of fields of the European Globe flower, *Trollius europaeus*; a few plants of the alpine *Pinguicula vulgaris*, while it would nestle in various grasses such as *Eriophorum angustifolium*, (now *polystachion*) sedges, and carex which are peculiar to this specific locale. On sour soil, near stagnant water, or where drainage is almost nil, *P. farinosa* is a midget, never over 2½" high. As the terrain gradually rises from the flat moor to higher ground, it also grows taller. The best specimens are found several feet above the moor level, where the drainage is perfect and the soil stays reasonably moist. Here *P. farinosa* was beautiful, just bursting its seams, compared with its kind only a few feet away. It was found among various orchis, campanulas, scabioses, fodder grasses, and *Parnassia palustris*, which the natives call the "student's flower." Here I have seen the Bird's Eye *Primula* nearly seven inches tall.

Each of these two locations was a remnant of the last glacial period and they were many miles apart. During the centuries the vegetation from the shores as well as the water plants had crowded the shore lines towards the deeper waters, eventually engulfing all. Today the first station is a soggy, quaking moor. The second station is an open, shallow body of brown murky water, with a brown bottom, in a small, flat vale, surrounded by wooded hills. Even now, *P. farinosa* may be found there in a sea of Globe flowers. During the first World War, when coal became scarce in Switzerland, peat was dug there, and an entire village of ancient Lake Dwellers became uncovered, with stone tools, charred wheat grains, and a few incomplete human craniums. Perhaps this spring another youth was walking among the *Primula*, dreaming new dreams, neglecting his studies and finding what nature has to offer — even as I, so many years ago.

A Practical Diary For Gardeners

First of all I bought a set of three looseleaf 3-ring binders to fit my Quarterlies. Some of the old numbers were repunched for me at the local binders so that all would fit the standard three-ring size. I had been trying to use a "5-year diary" for years, but was unhappy with limitations, due to its regularly prescribed amounts of space.

Two years ago I found a way to help me to orderliness of mind and to a more timely care of garden subjects. I bought two more binders, a box of plain white paper and a set of alphabetized index pages to fit.

This is now the second year I have kept an account of when, and how, and where, I have planted plants. I even have rough drawings of beds so that I can find certain species or hybrids whose labels so often get lost. Thus I know that "Candelabra Pagoda Hybrids" are "just west from the variegated *Pieris japonica*" and that the European hybrids, which could easily have been thought to be American by an uneducated eye, are "east of the larger magnolia." The index reads Pagoda—Sept. 3, '55, European Candelabras Sept. 5, '55. There are no page numbers as the information is seasonal for the most part, and this system keeps the pages flexible. Today, October 15th, I find that I am behind schedule this year and that a frost may be imminent. It is time to take tender plants into the cold house for hardening off before going into the house

or greenhouse. It is now the time to move the roses and give the peach trees a spraying of Orthorix. I am reminded by a note to myself, written in the Spring, to move the "pink" iris in from under the west walnut to a sunnier place, as there was too little bloom this Spring.

This year's notes are placed directly after last year's, according to date and looseleaf sheets are added according to need. All extraneous, out-of-date, or imperfect, "information" from the years before, will be crossed out. If there is ever time (who knows, in the dead of winter, between seed catalogs, year's sewing, fruit cake and Christmas cookies, pot washing, garden meetings, etc.) I hope to type and condense what was written last year—simply discarding the handwritten sheets.

Now, another binder has been added to my books, which have priority of space on the window ledges in the kitchen, held with bookends of potted plants which are brought in and out from the cold house for study of leaf structure or admiration of form. This is set up like the diary and contains clippings from various papers and magazines. It is indexed alphabetically by species and cultivar names and the leaves are numbered and extra inserted leaves are designated by the alphabet.

The appealing part of this system is its flexibility—perhaps there is not enough time to do more than jot a few notes in almost unreadable script. In fact I have a sort of "dirty" day-book—another looseleaf which I keep with me in the garden. This sometimes muddy binder can easily be wiped clean with a damp cloth. In planting a series of named plants it is necessary, if one wishes to know where the plants are, to supplement even the best label system with a diagram. If you have a garden partner who "helps" in such projects, such a diagram is essential to "peace in the garden." S.W.

The dates for the *A.P.S. National Show in Kirkland* are April 20, 21, and 22. Dates for other shows have not as yet come in to the Quarterly. Our next issue will be largely concerned with Show News and Techniques of Show Management. A letter from Mrs. W. (Alice) Warneck, President, East Side Garden Club of Kirkland follows:

"We have already made use of our affiliation membership, as well as our personal memberships by sending to Chester Strong, in Colorado, for seeds. He was very generous in the assortment he sent. Now we are awaiting our seedlings and hope that it will not be too long before we are in turn sending seeds to the Exchange.

"We are already working on our National Primrose Show for 1956. Mrs. Wm. Massey will be our General Chairman. I feel she is well qualified as she has been general chairman of our local show and has worked very hard in similar capacities in other years. She was Publicity Chairman this year and did a grand job. Our Garden Club re-elected me to be President for another year. We have such a wonderful group that it is a pleasure to work with and for them.

"We are hoping that many members of the Society will plan to come to our Show, and that members in other parts of the country will reserve the last half of April for a vacation in the Pacific Northwest. In this way they could make a tour of the Kirkland, Portland, Tacoma and other Primrose Shows which will, no doubt, be mentioned in the January Quarterly."

Information for Members New and Old

(Continued from page 122)

end of such society's fiscal year. Minimum payment for affiliation \$2.50. An affiliated organization membership shall entitle the organization, as such, to receive copies of all bulletins, reports, and publications issued by the American Primrose Society in proportion of one copy to each ten members; representation by a delegate at shows and other functions of the Society, and votes in the annual and other business meetings in proportion of one vote to each ten members. (6) A gift membership.

The 1956 Seed Exchange

I have been asked to act as distributor for the Seed Exchange for another season. Although it involved a considerable amount of time and energy, I thoroughly enjoyed it, and have consented to carry on this work. Of members I ask that contributed seed be forwarded as early as possible, or that those expecting to donate seed send a list of what they have at hand for this purpose. If this is done in time, the seed list will be published in the January Quarterly, and thus my time and the Society's money can be saved by not having to send out the mimeographed list used in the past.

Some complaint has been made that the distributor has been too generous in the amount of seed enclosed in packets and they will not be as generously filled, perhaps, as in the past, for I plead guilty to prodigality. There may be as few as 25 of the scarcer seeds to an envelope, but in most packets there will be at least enough to sow a four inch pan.

My chief concern is in getting contributors to forward seed. Some seeds have arrived and I trust that the flow will continue. It is my considered opinion that if the Seed Exchange cannot be made an actual exchange between members it should be discontinued. (Seeds of Polyanthus and Acaulis are not solicited unless they have evolved through at least five years of controlled hand hybridizing.)

Seed of Asiatic and European species Primula and seed of plants companionable to Primroses are acceptable. Seed of the rarer Primula species are especially acceptable.

Mail all seed directly to me, CHESTER K. STRONG, Box 126, Loveland, Colorado.

Plant Parasitic Nematodes

The plant-parasitic nematodes are subtle pests and they look, if you can see them at all, much the same as the harmless, or even helpful free-living nematodes which feed on fungi, microbes and other underground life. Few are more than one twenty-fifth of an inch long and many are "so small you could put thousands of them on your thumbnail. But their capacity for trouble-making is out of all proportion to their size."

"The root-knot and root-lesion nematodes are blamed for the types of underground damage they do; the first group causes actual knots or galls while the second inflicts wounds surrounded by dead tissue. There are several species in these two groups and they attack many crops." The root lesion nematodes attack strawberries, as well as a miscellaneous assortment of ornamental and food crops. The strawberry is a test plant because of its recognized monetary value as a food crop. Scientists are subsidized by great institutions and by the chemical companies to examine its habit. It has been noted that these tests have been very valid for those who grow Polyanthus and others of the Vernales Section. The same pests are attracted to both and a close proximity of the two plants will cause them to exchange pests. So, it is wise that we follow the entomological studies of the research teams who are working on the Strawberry. The University of California research project is, at the present time, trying to develop new defenses against the plant-parasitic nematode.

It is possible to fumigate the soil by the use of chemicals DD and EDB, but it must be remembered that the soil must be fumigated at least for eight inches.

The University of California is experimenting to find a biological control. "A few natural enemies of plant-parasitic nematodes are known, including some of their close relatives, the free-living soil nematodes. But so far none has been found as practical to growers." However, it is "encouraging to know that a full-scale scientific attack has been launched."

Much of the above was taken from a radio speech which may be purchased in mimeographed form from The University Explorer, Broadcast No. 3297—U.E. 1360,

University of California, Berkeley, for ten cents in coin. There is much of interest in the speech which was not incorporated in this article.

The Quarterly garden has long had a plot called "the hospital" where valuable but sick plants are kept. Some of them are brought in by members who hope that they can be nursed back to health. Most of this plot has been made by using fumigated earth which has been mixed with impregnated peat and sand which replaced the earth which was dug to a depth of two feet. The top four-inch layer is washed sand. The surrounding area is closely guarded against the infiltration of insects and these plants get very good care.

It was suspected that most of the doubles, Hose-in-Hose, Jack-in-the-Greens, miniature acaulis and polyanthus which were examined, were being bothered by nematodes, because they were suffering from root damage of the knotting type. These plants were thoroughly fumigated, the soil around their roots was burned, and their roots were cut to not more than three inches in length. If there were new roots forming near the crown the whole carrot was removed. They were planted in the sand and very soon their roots grew to seek the nourishment which lay at the bottom of the sand layer. The plants treated in this fashion recovered in a season so well that they were moved to a bed in the garden. Only two plants from last season have remained in the "hospital" and they are alive.

We are very anxious to have this *problem worked on by our members and to hear of their experiences* with root knot and other root malformations which attack precious doubles and other plants which are too fine to throw away. Of course there are other insects which attack the roots of plants, but with the exception of the underground snail, there are very effective controls for them. A letter, a paragraph, or an article would be most acceptable on this or any subject which will help to grow Primroses and to keep them.

P.S. At Deadline: Please read the October 15th issue of the Saturday Evening Post, page 53. The Editors will be asked for the loan of the illustrations for the article mentioned above as well as permission for reprint of paragraphs which deal with the root rot and root knot nematodes so that a permanent record will be kept in the files of the Quarterly. The best part of this article, written by Mr. Norris Leap, is that a control has been found by the use of a "trap crop" of alfalfa or French Marigolds. It seems that the nematodes relish them and that some fluid in the root causes the death of the culprit. To repeat, if you have any experience with root knot nematodes and their control, please write the Editor, 6016 Jennings Ave., Portland 22, Oregon.

All Primula Enthusiasts who are not members of the Alpine Garden Society should send a dollar bill (seventy-five cents plus cost of handling) for the June 1955 issue (Volume 23, No. 2, 100th issue) of the QUARTERLY BULLETIN OF THE ALPINE GARDEN SOCIETY. This issue contains an outstanding article "Primula, Meconopsis and Nomocharis," by Marjorie A. Brough, which is illustrated by large pictures of Primulas *eburnea*, *Sandemaniana*, *concholoba*, *Kingii* and *luteola* by the very artistic and accomplished *Scottish* photographer, David Wilkie. It would be well to send a check for \$2.80 for a membership for 1956, plus \$.75 for the June 1955 issue, plus \$.25 for cashing of check, to the Secretary, C.B. Saunders, Hussesys, Green Street Green, Farnborough, Kent, England. (More details about this Society are printed on page 92.)

The Human Element

Wayne Arnold, A.P.S. President

Membership of the Society is nearly double that of three years ago. This increase in membership has increased the work of the Officers to the point that a clerk-secretary-auditor, Mrs. Frank Howard, was hired by the Board to help the Editor, the Secretary, the Treasurer, and to prepare and mail out the meeting notices. Since she is not a "bread winner" she has agreed to work for a relatively small sum for the time being. Without her help, it is possible that we would have had sixteen page Quarterlies this year, as our Editor became ill at the time of the Portland Show and is now convalescing from a major operation and complications. The Editor has continued against doctor's orders to edit the Quarterly, to get the advertisements to help pay for it, and to keep up, in a measure, with the necessary correspondence. She works with Mrs. Howard for one hundred hours each Quarter and more than double that time alone.

The office of Treasurer has been held, up to the 22nd of October, by Sadie Griffin, who courageously took over the position when her husband, Mr. C. Y. Griffin, passed away suddenly in the Spring of 1954. Mrs. Griffin is a most faithful and hardworking member. She worked as manager of two of the most successful plant sales ever held by the Society because she was anxious to maintain a balance in the checking account which would guarantee much more than solvency. Great respect has been shown her by the members as she has always questioned expenditures which were not absolutely necessary for the economical and smooth running of the National Society. Mrs. Griffin finds that she cannot continue as Treasurer since she is now employed. She has not the time and energy necessary to the work of the Treasurer's office during the winter months when the membership dues are coming in, in great numbers. What more can I say to show our appreciation of Mrs. C. Y. Griffin's loyalty, hard labor, efficiency, tact, and gallantry?

Mrs. Orval Agee, who has been appointed Treasurer, is well known to members of the Society. The species on the Quarterly cover were drawn by her. She grows the rarer species extremely well, wins top honors each April, and is one of our most generous members. Mrs. Griffin suggests that members help her, "especially in the first few months" when she must adjust her personal life so that she can spend three or four hours a day with Society duties. She suggests that you:

- (1) "Pay your dues as early as possible. This saves time because no bills have to be sent.
- (2) "Be sure that the figures on your check or money order are *exactly* the right amount.
- (3) "Be sure that your signature and address are legible. The letters "u" and "n" as well as others in the alphabet can be mysterious and time-consuming. It is best to use print. Check your address on the mailing envelope and advise immediately if there is an error.
- (4) "Give at least two weeks' notice of change of address as second class mail is not forwarded but returned to the mailer, postage due.
- (5) "A personal word of encouragement, that requires no answer, is a wondrous thing to come across when the weary Treasurer is making out banking slips, sending membership cards, and entering accounts for the next day's report. Too often complaints, unaccompanied by constructive suggestions, lower the spirits of unpaid, overworked officers.
- (6) "Please consider it as self-evident that Officers in the Society are more ambitious for its ultimate good than they are to further their own interests by being members. I am sure that every officer who has served a year for the Society would be happy to hand over the position into competent hands because of the amount of labor

involved. However most officers have a sincere feeling of responsibility as well as a genuine gratitude to the Society for its services. This goes doubly for the Editor of our Quarterly."

It may be that the dues will have to be advanced after the first of the year because printing and engraving costs have gone up 15%. The Portland members of the A.P.S. are planning a huge plant sale to be held at the Gresham Fair in order to pay the local expenses. The expenses of the Quarterly and the national business expense must be paid by the revenue from memberships. There would be no reason to raise the memberships if each member would give a gift membership or sell a membership. The Quarterlies, after the first thousand, cost less than one-fourth as much. The first thousand can bear all the costs of running the Quarterly and the national expenses. If we were to have twelve hundred members, the pictures in the Quarterly could be page size and many of the species and hybrids could be shown in color. (Imagine an array of Polyanthus in colored pictures which would provide a comparison of the best strains for any given year! Imagine pictures of First Class Certificate plants in color!) This would have been done before now if the private purses of the President or the Editor had been adequate for more than the ordinary and necessary expenses which devolve upon anyone who holds such an office.

Yes, the answer to the question, "How may the A.P.S. be of even more service" is—that we must have a larger membership.

Another way to help is to get your local groups to affiliate with the Society. Some of the advantages of affiliation follow: (1) The President of the Affiliating group is automatically appointed as a Vice President. (2) The Seed Exchange is opened and subscriptions are sent in the ratio of one out of ten members. (3) The groups are encouraged by trophies and other supports to have "National Shows." (4) Space is given each affiliated group in the Quarterly so that it has a National, indeed an international column, in which the group may share its knowledge of Primulas and companion plants.

The Society is proud to announce the Affiliation of three new groups: The newly organized Canadian Primula and Alpine Society, the East Side Garden Club of Kirkland, and the Ketchikan Alaska Garden Club.

I want to thank you for all the letters you have sent me showing your interest in the affairs of the Society. I have tried to draw a clear picture of our work at headquarters and to show you how everyone can be a part of the wonderful growth which has been a steady reward for the services given by the Society.

General Election of Officers

will be held at the annual meeting of the American Primrose Society, November 15, 1955. Members outside the Portland area in good standing who wish to vote but cannot attend the meeting may send to the Treasurer, Mrs. Orval Agee, 11112 S.E. Wood Street, Milwaukie 22, Oregon, for a ballot. Marked ballots must be returned to that office before the annual meeting.

Cyrus Happy III

the President of our largest affiliated group, THE TACOMA PRIMROSE SOCIETY, and Regional Vice President of the A.P.S., will speak at the Annual meeting of the A.P.S. to be held at the Portland Garden Club, 1132 S.W. Vista Avenue, on November 15, 1955. His subjects will include *How Primulas are Grown in Tacoma and Problems of a National Show*. Slides will be used for illustration.

Transportation from downtown Portland can be arranged by calling OL 4-1347 or writing Wayne Arnold, 1112 Park Avenue, Milwaukie 22, Oregon. Out of town members are especially urged to attend and to make themselves known. An informal coffee hour will follow the lecture during which experts on the culture of Primulas will be available for questioning.

* * * *

Where can I get *Primulas Rusbyi, minutissima and angustifolia*? Editor.

Additions to Roster

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CANADIAN ALPINE & PRIMULA SOCIETY
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ROSENFELD, Mrs. James W. 6427 S.W. Hamilton, Portland, Ore.
ROSENBAUM, Dr. Edward 4444 S.W. Fairhaven Dr., Portland 1, Ore.
RUVOLIS, Mr. Leo 203 Nesquehoning St., Easton, Pa.
SHERMAN, Mrs. E. J. Rt. 2, Box 88, Molalla, Ore.
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c/o Evileen C. Harrison, Treas., 1300 Valley Drive, Syracuse 7, New York
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PRICE, Mrs. Keith Rt. 13, Box 574, Fairfax, Va.
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Seasonal Notes From Barnhaven

Florence Levy

It is in the fall and winter months that primroses play an exciting and dangerous game. They call it "How to Win Hearts and Worry Gardeners" and is played by rushing into bloom whenever the temperature rises above freezing for any length of time, giving no thought to the future. Impulsive, improvident primroses on their gay way! To save them from themselves, to reduce impulsiveness to eagerness, improvidence to generosity, it is necessary to impose controls thereby making them safe but not nearly so exciting. We have talked of evergreen boughs before. There is nothing new in this, but in some areas conifer branches are not as easily obtained as in the Pacific Northwest, and even here the chore can become tedious. So it is with interest we have been listening to eastern gardeners and their use of wood excelsior to keep a lid on primroses until it is safe to uncover them.

Mrs. Wellington Vince of Duluth saves the excelsior from boxes of Holland bulbs and puts a large handful over each plant, leaving it on until spring when it is removed and the primroses found to be green, in many cases budded. Helen Coleman of Coleman's Perennial Gardens in Easthampton, Massachusetts wrote last May that their "primroses were the finest they ever had, many customers saying the most beautiful they had ever seen. And this after the worst winter—easy on the snow shovel but tough on plants. Fortunately I covered ours with excelsior and pine needles and didn't seem to lose any." In winters where alternate freezing, thawing and snow is the rule, gardeners prefer putting such protection over the plants at the first freeze and leaving it on until the temperature stabilizes in the 30's, which is of the utmost importance. Vernal primroses make their flower crop in summer and fall and are ready to plunge into bloom at the first signs of warmth and increasing light of the lengthening days. Keeping them covered with such a non-packing insulating material until temperatures remain above freezing accomplishes two things: retards evaporation which saves the growing plant from collapse when subjected to sudden freeze, and keeps them dark, therefore semi-dormant and less active. In predominantly rainy winters it is better to put the excelsior on during the freeze, or just before, and take it off when rains set in again to avoid rot. If there has been a natural hardening-off

process through gradual temperature declines to the upper 20's and lower 30's during the milder periods. The plants can usually make a return to semi-dormancy without protection if the freeze is not too severe or of too long duration. The transpiration of moisture is then reduced to correspond to the plant's reduced absorption, and this in turn raises the sugar content enabling the plants to resist the loss of water. Excelsior can be gathered throughout the year and stored against winter use. Hardware stores will be pleased to give it to you.

Among the most over-confident primroses are the Acaulis. Yet they manage to keep their innocent charm intact during ordinary freezes by quick retreats, unhampered, as they are, by developing stalks. Harbinger, for instance, begins its true bloom in late fall and early winter. This beautiful large white with the heart-shaped petals was a sensation in 1882 when Gilbert exhibited it for the first time at one of the Royal Horticultural Society's fortnightly shows and won for it a First Class Certificate. We have been hand-pollinating it for twenty years and in that time have lengthened and stiffened the stems until each frosted bloom is held above the plant as though by a hatpin. This is now true of all our Acaulis and it is with considerable pride we begin to urge their use for earliest color in the garden and for bunches in the house. During these twenty years, size of bloom has also been increased to equal the shape of Evelyn Arkwright, a giant sport of P. vulgaris found by Arkwright in 1887 in Dinmore Wood, Herefordshire, bordering Wales. This chance variety, yellow of course, on long stout stems measured between 2 and 2½ inches after the rose-like buds had fully opened.

Not many years will be required to match the Polyanthus color range. The blues have always been heavenly, and yellow Acaulis can be had now in a red-stemmed variety resembling osier twigs each with its own single rose. The Harbingers are as classic as white Polyanthus; the pinks are soft cameo, peach and rose shades with the new brilliant pinks not far away; the apricots are irresistible. It is quite impossible to tell you what a thrill it is to find blue primroses under the ice like sapphires in a snow-trimmed showcase, or the first long golden bud winter puts in his lapel on a particularly bleak day.... these are experiences each must know for himself.

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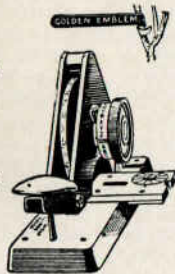


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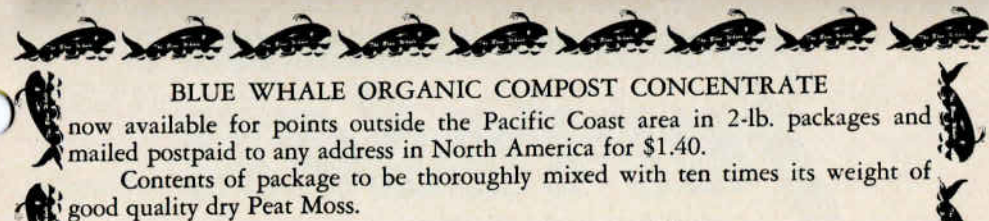
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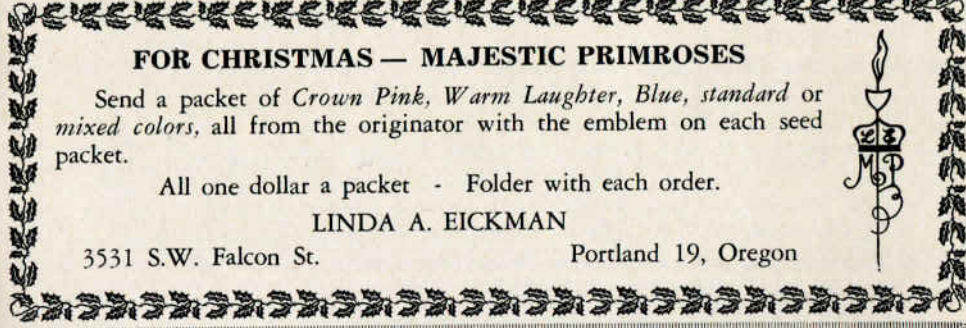
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Any mixture of vegetation, provided it contains moisture, can be rapidly decomposed and recomposed to humus, by the Fertosan process, and, in this connection, it is not necessary to attain what is supposed to be the normal carbon to nitrogen ratio.

Although bruising and opening of large materials is desirable, it is not essential for the Fertosan organisms enter any open spot and travel throughout the vegetation whatever its size. In this connection, I have, from May to September, fully composted a piece of fencing post 3 ft. long of 3"x2" section. On taking it out of the heap it held its shape but could be crumbled in the hand.

Turning is unnecessary with the Fertosan process. The heap does not get soggy or water-logged, as oxygen is supplied to the interior of the heap to support the aerobic life within it, this being split off from the water which would otherwise tend to log, (one of the chief benefits of the Fertosan process). We have never yet known a Fertosan heap to become water-logged.

No bins or boxes are necessary, merely a site of ordinary soil and an occasional bucket of water added to the heap. In the first place, it is now well known that a solution is made and sprinkled over the layers of the refuse. The heap may contain nitrogenous matter, which may include animal or poultry manures. As soon as the Fertosan solution touches the heap, the nitrogen is "locked up" into a form only available to plant life, and no loss or leaching can occur. A very important point also emerges here, and this is, with the Fertosan process, and the Fertosan process only, the high temperatures which so far have been thought to be desirable, are rigidly controlled and a gentler, more genial warmth suffuses the mass. It will be obvious that, under these conditions, all the organisms can work within the heap without waiting for the interior heat to subside.

Weed seeds in the Fertosan heap are killed in a more efficient way; they are not burned to charcoal or carbon. The controlled warmth has the effect of germinating the seeds, thus "malting" the foods contained in these embryos. The growing sprout upon emergence, is immediately attacked by the Fertosan organisms and is destroyed, chiefly because light is absent in the heap, but it will be noted that the food values of the embryos remain in a very desirable state for us as plant food.

With the Fertosan process, no turning of the heap is required, because a double purpose is served by the Fertosan Accelerator. Organisms are included to split off oxygen from the water which would otherwise smother the heap, and this oxygen supports the aerobic conditions which are essential to successful composting, and which do the work of the frequent turning usually recommended.

Diseases are eliminated by the Fertosan process as part of the general design, and in our folders, we do not claim to merely "control" or to "check" soil-borne diseases, but in the case of club-root (finger and toe of brassicas) and similar slime-fungus disease, we claim to eliminate them.

When the heap is covered with a thin "skin" of soil, flies are never a nuisance, and due to the maintenance of the aerobic conditions previously mentioned, unpleasant odours do not exist.

It should, therefore, be obvious that the inclusion in a compost heap of a biological accelerator such as Fertosan, confers the following advantages:—

It eliminates Disease

It renders turning unnecessary

It obviates the use of machinery for grinding to size

It operates upon any material, provided that material is moist.

In addition to this, the *Fertosan Solution will keep indefinitely.*

Fertosan will accommodate both large and small users as it is put up in packets to decompose 1, 4, 20, 60, 100 and 1,000 tons.

It is of interest to point out that many years ago I made this product for my own use and I gave samples away to my friends. From this has grown the present demand, and Fertosan Compost Accelerator now enjoys a world-wide use, chiefly through the recommendation of one user to another.

Signed:

G. E. DAWSON, Technical Director, FERTOSAN LIMITED

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Acme Peat Products Limited

SPONSORS A HIGH POTENCY BROADCAST BY THE BLUE WHALE

Dear Friends:

On this, my first broadcast from Vancouver, B.C., I want to tell you part of the story of my life and how it has affected the lives of gardeners on the West Coast. The General Manager of Acme Peat Products Limited deplored the waste of good liquid whale fertilizers, which, when applied to a plant, gave a lift and then leached away out of the reach of the plant's roots. He conceived a method by which the finest Canadian Peat Moss could be filled with the solubles made from the entire whale, (baleen, bone and all). The product, BLUE WHALE IMPREGNATED PEAT MOSS, was the result. It was a proud day when it was proven that this product, when used as a part of the growing medium, allowed its valuable substance to be checked out of the soil by roots, in the same fashion as a human being uses a checking account, ACCORDING TO DAILY NEEDS. To illustrate this point I will give you a condensation of a true story about one of my best boosters in Oregon.

In 1953 she potted her fuchsias in a high grade mixture containing well-rotted manure, decayed compost and beaver dam soil, fortified with fish and bone meal. Two weeks after potting, the weekly, all-summer chore of fertilizing with fish fertilizer began. In 1954 she followed the suggestion that she plant her fuchsias in a mixture of 3 parts well dampened BLUE WHALE IMPREGNATED PEAT, 1 part sand and small gravel and 2 parts good garden soil. The fuchsias were trimmed and as soon as they put on leaf and were ready to hang, they started to bloom more beautifully than ever before. In the fall, when the blossoms were nipped by the first freeze, the plants were stored, pots and all, under the greenhouse benches. When this spring came there was no time to repot and BLUE WHALE was used as a mulch over the crowns of the plants. She plans, in 1956, on using the same mixture she used in 1954, because the "plants couldn't be more beautiful and because they seem more resistant to insect damage and leaf spot." She

figures that BLUE WHALE saved an expenditure of 123 hours of labor, ordinarily expended in weekly fertilizing, in 1954 and 148 hours in 1955. If her time were worth the minimum wage she would have saved over two hundred dollars. As it was, her actual expenditure, in money as well as energy, was much less. She is naturally grateful and writes, "I now use several nursery size hales of Blue Whale each year for maintaining my perennial borders, for bedding plants down in the winter and for starting annuals and perennial seedlings in the spring. My husband thinks it makes the most beautiful turf he has ever seen. I am firmly convinced that BLUE WHALE is so constituted that its elements are utilized continuously according to the plant's needs. For this reason I feel that it is the most economical product I can use. The proof will be obvious to any gardener who uses BLUE WHALE."

Everyone likes to be appreciated for himself alone and I am no exception. The different plant societies and nurserymen seem to feel that BLUE WHALE was invented for their favorite flowers. It will take many broadcasts for me to tell you of the wonderful way BLUE WHALE has been received by grateful gardeners. I will sign off now with my old slogan, sincerely meant,



YOURS FOR SERVICE,

The Blue Whale.